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ABSTRACT

This study attempts to identify the specific demographic and sociological characteristics related to improvement for 48 male alcoholic patients who participated in two contrasting one-month inpatient treatment programs. Of the 48 subjects, 27 participated in a broad spectrum behavior therapy program (experimental group). The remaining 21 subjects participated in a traditional group psychotherapy program (comparison group). To explore the relationship between the characteristics of the subjects who completed each treatment program and therapeutic outcome, a total change score was obtained for each subject. Within each program each of 18 variables found useful in discriminating between outcome categorizations in similar investigations was then correlated with total change. The outstanding finding was the variance among predictor variables having prognostic significance within each treatment program. For the comparison group, married subjects with an occupational skill, a higher IQ, and fewer arrests during the three months prior to treatment demonstrated greater total change than unmarried subjects, unskilled workers, subjects with lower IQ's, and subjects reporting a greater number of arrests. For the experimental group, contrasting findings emerged. Fine discriminations in terms of subject characteristics must be made in order to adequately assign individuals to treatment regimens. (Author/JLL)

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PREDICTION OF IMPROVEMENT IN TWO CONTRASTING ALCOHOLISM TREATMENT PROGRAMS

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In light of the numerous different treatment approaches used to intervene in the lives of problem drinkers, a number of investigators have observed the need for methodologically sound research designed to assess the specific characteristics of alcoholics who benefit from each of these contrasting therapeutic modalities (Gillis & Keet, 1970; Goldfried, 1970; Mindlin, 1959). However, attempts to assess the relationship between demographic and sociological characteristics of alcoholics and therapeutic outcome are confounded by two major problems: (a) the rating of therapeutic outcome, and (b) the discrimination between outcome groups from specific subject characteristics.

Numerous investigators have addressed themselves to the first problem--that of rating therapeutic outcome or improvement (Blaney & Radford, 1972; Gillis & Keet, 1970; Goldfried, 1970; Mindlin, 1959). Goldfried, and Gillis and Keet, in perhaps the most systematic efforts to measure improvement, employed drinking behavior, job performance, and home and social life as separate change areas, and combined change scores across change areas to obtain an overall change or improvement rating for each subject. Both investigators used each subject as his own control, comparing subjects' post-treatment scores with their pretreatment scores.

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Similarly, a number of researchers have attempted to deal with the second problem--that of discriminating between outcome groups from specific subject characteristics (Kendall & Staton, 1966; Pokorny, Miller & Cleveland, 1968; Robson, Paulus, & Clarke, 1965; Zigler & Phillips, 1961). Using correlational methods, these investigators have developed a profile of the subject characteristics of alcoholics who appear to benefit from traditional group therapy treatment. Such an individual appears to be a subject who is coming for treatment for the first time, or returning to the same institution for further treatment, who has been regularly employed as a skilled worker over an extended period of time prior to treatment, who is fairly well-educated and bright, has a stable marriage and a wife to return to, has good job prospects, has not isolated himself interpersonally, and has fewer arrests and imprisonments. This finding is very much in accord with the conclusions reached by Strupp (1962) in his discussion of psychotherapy in general.

The present study utilized the methods and findings of previous investigators in attempting to identify the differential demographic and sociological characteristics related to improvement for 48 male alcoholic patients who participated in two contrasting 1-month inpatient treatment programs.

Method

Subjects

Forty-eight alcoholic patients were treated at the Veterans Administration Hospital, Houston, Texas. Twenty-seven of these subjects completed a "broad spectrum" behavior therapy treatment program, in which covert

conditioning techniques and action therapy (psychodrama) were employed for a combined 3 hours per day. Subjects were treated in three groups. The groups ranged in size from 6 to 11 members each. Twenty-one patients received group psychotherapy for 3 hours per day for 1 month. They were also treated in three groups which ranged in size from 5 to 8 patients. Each month, only one program was run, and programs alternated months of operation over a 6-month period. Subjects were housed and treated on the same ward. Both of these programs have been thoroughly described in earlier publications (Gallen, 1973; 1974a; 1974b; 1974c).

During the first week of treatment, all subjects were administered an extensive interview, during which specific data concerning drinking behavior, work performance, and social participation were obtained. Similarly, 90 days subsequent to discharge, all 48 subjects were again interviewed in each subject's natural environment. These same parameters were assessed at this time.

Procedure for Studying Prognostic Indicators of Improvement

To explore the relationship between the characteristics of the subjects studied within each treatment program and therapeutic outcome, four change ratings were obtained for each subject: (a) change in drinking behavior, (b) change in employment record, (c) change in pattern of social participation, and (d) total change.

To obtain these four change ratings, each subject was rated on each dimension for both the 90-day period prior to treatment and the 90-day period subsequent to treatment. As is indicated in Table 1, the drinking and work dimensions were rated on the basis of 7-point scales. The scales

were derived from categorizations which emerged from the intake and follow-up interviews. Points along each scale and subsequent ratings were consequently defined by the data. The social participation dimension was rated on the basis of a 5-point scale. The scale was derived from subjects' responses on the Social Participation Questionnaire. A rating for each subject was obtained by having two independent judges (neither of whom had any knowledge of the form of treatment subjects had received or whether they were rating an intake or follow-up protocol) rate each subject on the derived scale. A Pearson r yielded an interjudge reliability of .83. Discussions were held on the reasons for discrepancies, and eventual agreement was reached.

Insert Table 1 about here

Change ratings within each dimension were obtained for each subject by subtracting the posttreatment rating from the pretreatment rating. The total change score was obtained by summing each of the three separate change scores. As previously stated, in using each subject as his own control, the base line period against which changes were compared for each change dimension consisted of the 90-day period prior to treatment.

Results

To examine the relationship between subject characteristics and therapy outcome, each of 18 variables found useful in discriminating between outcome categorizations in similar investigations were correlated with degree of improvement (total change). For the first series of

correlations, all subjects within each treatment program were studied. The predictor variables and the obtained correlations appear in Table 2. The outstanding finding was the contrast in predictor variables found to have prognostic significance within each treatment program. Although the values of some of the correlations were appreciable, they frequently failed to reach statistical significance as a result of the small sample studied.

Insert Table 2 about here

As is indicated in Table 2, for comparison subjects, married subjects, in comparison to single, separated, or divorced subjects, obtained significantly higher change scores. Comparison subjects with an occupational skill showed significantly greater change than unskilled subjects. The subjects' arrest record during the 3 months prior to treatment also proved to be a useful prognostic indicator: Subjects with fewer arrests showed significantly greater total change. Aside from these findings, the other statistical comparisons for the comparison group were not useful.

For the experimental subjects, none of the relationships studied attained statistical significance. Several correlations, however approached significance. Having worked 50 or more days during the 90 days prior to treatment tended to be negatively correlated with total change. Similarly, subjects who were unskilled and had a greater number of admissions to the Veterans Administration Hospital during the year preceding treatment demonstrated a greater degree of change. The amount of ethanol

consumed during the 7-day period prior to treatment also tended to have a negative relationship to total change. The direction of these relationships is opposite to those found in the comparison group and to the directions expected.

To highlight the differences between markedly improved and minimally improved or unchanged subjects, subjects within each treatment group were rank-ordered according to their total change score. The top and bottom one-third's within each treatment group were combined and studied further, with the middle group eliminated. Each of the 18 predictor variables related to total change in the first series of correlations, was again correlated with total change for each treatment group. Table 3 presents the obtained correlations. As is indicated in Table 3, the same prognostic indicators which proved to be useful for the entire comparison group were again useful. In addition, the correlation between IQ and total change approached statistical significance. No appreciable changes within the prognostic indicators for the experimental subjects were indicated through this analysis.

Insert Table 3 about here

Discussion

This investigation suggests that there is a differential set of predictor variables found to have prognostic significance within each of the treatment programs studied. Furthermore, other differential predictor variables more than likely would have been identified for each treatment

program if larger samples were studied.

The general findings regarding predictors of improvement for the traditional group psychotherapy program were consistent with the results obtained by earlier investigators (Gillis & Keet, 1970; Goldfried, 1970; Mindlin, 1959; Pokorny et al., 1968). Married subjects with an occupational skill, a higher IQ, and fewer arrests during the 3 months prior to treatment, demonstrated greater total change than unmarried subjects, unskilled workers, subjects with lower IQ's, and subjects reporting a greater number of arrests.

For experimental subjects, contrasting findings emerged. Although no statistically significant correlations were found, on several occasions significance was closely approached, and where this occurred, subject characteristics which had proved to be negatively related to total change for the subjects who completed the comparison program were positively related to total change for the experimental subjects. For example, lack of work stability, unskilled occupational status, and lower IQ were related to total change in a positive direction for this group, in direct contrast to the findings for the comparison group.

These findings have important practical implications. They suggest that the broad diagnostic category of alcoholism is of little predictive utility, and that finer discriminations in terms of subject characteristics must be made in order to adequately assign individuals to different treatment treatment regimes from which they receive optimal benefit, as individuals with different demographic and sociological characteristics appear to benefit differentially from behavior therapy and traditional group psychotherapy treatment programs.

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References

Blaney, R., & Radford, I. Prediction of outcome in the treatment of alcoholism. Society for Social Medicine, 1972.

Gallen, M. Toward an understanding of follow-up research with alcoholics. Psychological Reports, 1974a, 34, 877-888.

Gallen, M. Evaluation of an alcoholism treatment program utilizing covert conditioning and action therapy. Paper presented at the Western Psychological Association meeting in San Francisco, 1974b.

Gallen, M. Evaluation of two contrasting alcoholism treatment programs. Paper presented at the North American Congress on Alcohol & Drug proglems in San Francisco, 1974c.

Gallen, M., Williams, B., Cleveland, S. E., O'Connell, W. E., & Sands, P.M. A short term follow-up of two contrasting alcoholic treatment programs: A preliminary report. Newsletter for Research in Mental Health & Behavioral Sciences, 1973, 15, 36-37.

Gillis, L. S. & Keet, M. Prognostic factors and treatment results in hospitalized alcoholics. Quarterly Journal of Studies on Alcohol, 1970, 31, 427-437.

Goldfried, M. R. Prediction of improvement in an alcoholism outpatient clinic. Quarterly Journal of Studies on Alcohol, 1970, 31, 129-139.

Kendell, R. E. & Staton, M. C. The fate of untreated alcoholics. Quarterly Journal of Studies on Alcohol, 1965, 26, 685-686

Mindlin, D. F. The characteristics of alcoholics as related to prediction of therapeutic outcome. Quarterly Journal of Studies on Alcohol, 1959, 20, 604-619.

Pokorny, A. D., Miller, B. A., & Cleveland, S. E. Response to treatment of alcoholism: A follow-up study. Quarterly Journal of Studies on Alcohol, 1968, 29, 364-381.

Robson, R. A., Paulus, I., & Clarke, G. G. An evaluation of the effect of a clinic treatment program on the rehabilitation of alcoholic patients. Quarterly Journal of Studies on Alcohol, 1965, 26, 264-278.

Strupp, A. Psychotherapy. Annual Review of Psychology, 1962, 13, 445-478.

Zigler, F., & Phillips, L. Social competency and outcome in psychiatric disorders. Journal of Abnormal Social Psychology, 1961, 63, 264-271.

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Table 1

Index of Improvement Scale

Change Area	Points
Drinking Pattern	
Continuously abstinent	1
Minimal non-problem drinking	2
Extensive non-bout drinking	3
Clear problem drinking - one short binge	4
Short problem drinking periods with longer periods of sobriety	5
Short periods of sobriety with longer periods of problem drinking	6
Daily problem drinking	7
Work Record	
Worked continuously - no absences or problems on job	1
Worked continuously - frequent absences and/or work problems	2
Worked continuously - however, did not work for a 30-day period within 90-day comparison periods and/or laid off for reasons unrelated to work performance and did not seek further employment	3
Worked 50 or more days - job interference related to drinking	4
Worked 25-50 days - job interference related to drinking	5
Worked 25 days or less - job interference related to drinking	6
No work	7

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Table 1, Continued

Change Area	Points
Social Participation*	
Active social participant (attended social and community activities on some typical schedule or basis	1
Limited social activity with family and/or friends involving activities other than drinking. Limited participation in community affairs.	2
Very infrequent social participation with family and non-drinking friends - limited in both quantity and quality	3
Social and community involvement limited to drinking with drinking partners	4
Lack of involvement with others. Isolated a majority of the time.	5

*Social participation ratings were derived from subjects' responses on the social participation questionnaire.

Table 2

Product Moment and Point Biserial Correlations Between Subject Characteristics and Total Change Rating For Experimental and Comparison Groups

Variable	Experimental Group		Comparison Group	
	r	Sig.	r	Sig.
Number of days abstinent during 90 days prior to treatment	-.18	NS	.10	NS
Drank continuously and daily during 90 days prior to treatment*	.12	NS	-.04	NS
Worked 50 or more days during 90 days prior to treatment*	-.31	<.10	.05	NS
Number of days worked during 90 days prior to treatment	-.17	NS	.06	NS
Job to return to*	-.21	NS	.16	NS
Unskilled work status*	.29	<.15	-.46	<.05
Total ethanol consumed during week prior to treatment	-.34	<.10	.18	NS
Married - wife to return to*	-.17	NS	.42	<.05
Living by self during 90 days prior to treatment*	.25	NS	-.04	NS
Number of treatments during year prior to treatment	.22	NS	-.07	NS

Variable	Experimental Group r	Experimental Group Sig.	Comparison Group r	Comparison Group Sig.
Number of admissions to VAH during year prior to treatment	.31	<.10	-.01	NS
Educational level	-.00	NS	.02	NS
IQ score	.200	NS	-.21	NS
Number of arrests during 3 months prior to treatment	-.18	NS	-.61	<.01
Number of years of alcohol consumption at a problem level	.25	NS	-.08	NS
Worked continuously during 90 days prior to treatment*	-.02	NS	.15	NS

Note: N = 27 for experimental group and N = 21 for comparison group.

*Point Biserial Correlation Coefficient. All other correlations were Pearson Product-Moment Correlations.

Table 3

Product Moment and Point Biserial Correlations Between Subject Characteristics and Total Change Rating For Experimental and Comparison Subjects Ranked in Upper and Lower Thirds of Group in Terms of Total Change

	Experimental Group		Comparison Group	
	r	Sig.	r	Sig.
Number of days abstinent during 90 days prior to treatment	-.21	NS	.14	NS
Drank continuously and daily during 90 days prior to treatment*	.09	NS	-.12	NS
Worked 50 or more days during 90 days prior to treatment	-.26	NS	<-.00	NS
Job to return to*	-.16	NS	.09	NS
Number of days worked during 90 days prior to treatment	-.21	NS	.13	NS
Unskilled work status*	.32	<.10	-.50	<.05
Total ethanol consumed during week prior to treatment	-.36	<.10	.15	NS
Married - wife to return to*	-.22	NS	.48	<.05
Living by self during 90 days prior to treatment*	.16	NS	.18	NS
Number of treatments during year prior to treatment	.26	NS	.08	NS

Table 3 Continued

Variable	Experimental Group r	Sig.	Comparison Group r	Sig.
Number of admissions to VAH during year prior to treatment	.29	NS	.02	NS
Educational level	-.10	NS	.23	NS
IQ Score	-.18	NS	.38	<.10
Number of arrests during 3 months prior to treatment	.23	NS	-.68	<.01
Number of years of alcohol consumption at a problem level	.18	NS	.14	NS
Worked continuously during 90 days prior to treatment	.12	NS	.13	NS

Note: N = 18 for experimental group and N = 14 for comparison group.

*Point Biserial Correlation Coefficient. All other correlations were Pearson Product-Moment Correlations.